

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A digital image capturing device that enables a user to capture a single image of an object, comprising:
 - a shutter button;
 - an electronic imaging sensor device comprising a plurality of pixels;
 - an electronically actuatable shutter device comprising a plurality of individually addressable and actuatable shutter elements, each of said plurality of individually addressable shutter elements substantially corresponding to at least one of said plurality of pixels;
 - a storage medium that stores a plurality of exposure patterns; and
 - a processor that (a) allows a user to select one of said stored plurality of exposure patterns, (b) completely applies the selected exposure pattern to said shutter device in response to activation of the shutter button to allow light reflected from the object whose image is to be captured to illuminate said imaging sensor through said selected exposure pattern, and (c) records on a storage device only a single image of the object as a result of the complete application of the selected exposure pattern.
2. (Original) The apparatus of claim 1, wherein said imaging sensor device comprises a two-dimensional array of pixel elements and said shutter device comprises a LCD element comprising a two-dimensional array of individually addressable and actuatable shutter elements corresponding to said two-dimensional array of pixel elements.
3. (Previously Presented) An imaging module for a digital still image capturing device, comprising:

a shutter device comprising a plurality of shutter element pairs, wherein each pair of shutter elements consists of a first individually addressable shutter element having a first polarization orientation and a second individually addressable shutter element having a second polarization orientation that is substantially orthogonal to said first polarization orientation; and

an electronic imaging sensor device having a two-dimensional array of pixel sensors, wherein each shutter element pair corresponds to a pair of pixel sensors.

4. (Original) The apparatus of claim 1, wherein said shutter device comprises a microelectromechanical shutter element comprising a two-dimensional array of individually addressable and actuatable shutter elements.

5. (Original) The apparatus of claim 1, further comprising a memory including an address storage capable of storing one or more shutter element addresses.

6. Cancelled

7. (Previously Presented) The apparatus of claim 1, wherein at least one of said exposure patterns specify a plurality of exposure time periods corresponding to a plurality of shutter elements to be actuated.

8. (Original) The apparatus of claim 1, wherein said shutter device is formed on and is substantially co-planar with said imaging sensor device.

9. (Original) The apparatus of claim 1, wherein said shutter device is assembled with and substantially co-planar with said imaging sensor device.

10-11. Cancelled

12. (Previously Presented) The apparatus of claim 3, wherein said shutter device comprises a microelectromechanical shutter element comprising a two-dimensional array of individually addressable shutter elements.

13. (Previously Presented) The apparatus of claim 3, further comprising a memory including an address storage capable of storing one or more shutter element addresses.

14. (Previously Presented) The apparatus of claim 3, further comprising a memory including a pattern storage capable of storing one or more shuttering patterns that specify a plurality of shutter addresses of shutter elements to be actuated.

15. (Previously Presented) The apparatus of claim 3, further comprising a memory including a pattern storage capable of storing one or more shuttering patterns that specify a plurality of exposure times corresponding to a plurality of shutter elements to be actuated.

16. (Previously Presented) A light shuttering method for a still image capturing device, comprising the steps of:

providing an electronic imaging sensor device comprising a plurality of pixel elements;

providing an electronically actuated shutter device comprising a plurality of individually addressable and actuatable shutter elements, each shutter element substantially corresponding to at least one of said plurality of pixel elements;

providing a storage medium that stores a plurality of exposure patterns;

providing a processor that (a) allows a user to select one of said stored plurality of exposure patterns, (b) completely applies the selected exposure pattern to said shutter device in response to activation of a shutter button to allow light reflected from the object whose image is to be captured to illuminate said imaging sensor through said selected exposure pattern, and (c) records on a storage device only a single image of the object as a result of the complete application of the selected exposure pattern.

17. (Original) The method of claim 16, wherein the providing said shutter device step comprises forming said shutter device on said imaging sensor device.

18. (Original) The method of claim 16, wherein the providing said shutter device step comprises providing a two-dimensional array of individually addressable shutter elements, wherein a pixel unit of said imaging sensor device is individually addressable, wherein a first shutter element of said pixel unit polarizes light according to a first polarization orientation and a second shutter element of said pixel unit polarizes light according to a second polarization orientation that is substantially orthogonal to said first polarization orientation, and wherein the method provides a substantially non-polarized light to said imaging sensor device.

19. (Original) The method of claim 16, further including a step of storing a shutter actuation pattern that specifies a plurality of shutter elements to be actuated during an image capture.

20. (Original) The method of claim 16, further including a step of storing a shutter actuation pattern that specifies a plurality of exposure time periods for a corresponding plurality of shutter elements.

21. (Previously Presented) The apparatus of claim 1, wherein at least one of said exposure patterns specifies a first group of shutter elements and a second group of shutter elements, wherein said first group of shutter elements includes one or more shutter elements that are not included in said second group of shutter elements, and wherein said at least one of said shutter exposure patterns also specifies a first exposure time period for the first group of shutter elements and a second exposure time period for the second group of shutter elements, wherein the first exposure time period is greater than the second exposure time period.

22. (Previously Presented) The apparatus of claim 21, wherein said at least one of said-exposure patterns further specifies a third group of shutter elements and a third exposure time period for the third group of shutter elements, wherein the third exposure time period is greater than the first exposure time period.

23. (Previously Presented) The apparatus of claim 21, wherein, when the processor applies said at least one of said exposure patterns in response to activation of the shutter button, the processor actuates the first group of shutter elements for an amount of time no greater than the first exposure time period and actuates the second group of shutter elements for an amount of time no greater than the second exposure time period

24. (Previously Presented) The apparatus of claim 1, wherein at least one of said exposure patterns specifies a first group of shutter elements and a second group of shutter elements, wherein said first group of shutter elements includes one or more shutter elements that are not included in said second group of shutter elements, and wherein said at least one of said shutter exposure patterns also specifies a first opacity level for the first group of shutter elements and a second opacity level for the second group of shutter elements, wherein the first opacity level is greater than the second opacity level.

25. (Previously Presented) The method of claim 16, wherein the selected exposure pattern specifies at least a first group of said shutter elements and a second group of said shutter elements, wherein said first group includes one or more shutter elements that are not included in said second group of shutter elements.

26. (Previously Presented) The method of claim 25, wherein the selected exposure pattern specifies a first exposure time period for said first group of shutter elements and a second exposure time period for said second group of shutter elements, wherein the first exposure time period is greater than the second exposure time period.

27. (Previously Presented) The method of claim 26, wherein, when the processor applies said selected exposure pattern in response to activation of the shutter button, the processor actuates the first group of shutter elements for an amount of time no greater than the first exposure time period and actuates the second group of shutter elements for an amount of time no greater than the second exposure time period.

28. (Previously Presented) The method of claim 25, wherein the selected exposure pattern specifies a first opacity level for said first group of shutter elements and a second opacity level for said second group of shutter elements, wherein the first opacity level is greater than the second opacity level.

29. (New) The imaging module of claim 3, wherein the electronic imaging sensor is a CCD sensor or a CMOS sensor array.

30. (New) A digital still image capturing device, comprising:
the imaging module of claim 3;
a lens for focusing an image on said imaging module;
a shutter button;
a memory; and
a processor coupled to the shutter device, the electronic imaging sensor, the shutter button, and the memory, wherein
the processor is configured to receive an input from the shutter button and, in response to receiving the input, control a shuttering operation of the shutter device.